

Postharvest Losses and Handling Improvement of Organic Pak-Choi and Choy Sum

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Abstract : Current consumers' behavior trends have changed towards more health awareness, the well-being of society and interest of nature and environment. The Royal Project Foundation is, therefore, well aware of organic agriculture. The project only focused on using natural products and utilizing its highland biological merits to increase resistance to diseases and insects for the produce grown. The project also brought in basic knowledge from a variety of available research information, including, but not limited to, improvement of soil fertility and a control of plant insects with biological methods in order to lay a foundation in developing and promoting farmers to grow quality produce with a high health safety. This will finally lead to sustainability for future highland agriculture and a decrease of chemical use on the highland area which is a source of natural watershed. However, there are still shortcomings of the postharvest management in term of quality and losses, such as bruising, rottenness, wilting and yellowish leaves. These losses negatively affect the maintenance and a shelf life of organic vegetables. Therefore, it is important that a research study of the appropriate and effective postharvest management is conducted for an individual organic vegetable to minimize product loss and find root causes of postharvest losses which would contribute to future postharvest management best practices. This can be achieved through surveys and data collection from postharvest processes in order to conduct analysis for causes of postharvest losses of organic pak-choi, baby pak-choi, and choy sum. Consequently, postharvest losses reduction strategies of organic vegetables can be achieved. In this study, postharvest losses of organic pak choi, baby pak-choi, and choy sum were determined at each stage of the supply chain starting from the field after harvesting, at the Development Center packinghouse, at Chiang Mai packinghouse, at Bangkok packing house and at the Royal Project retail shop in Chiang Mai. The results showed that postharvest losses of organic pak-choi, baby pak-choi, and choy sum were 86.05, 89.05 and 59.03 percent, respectively. The main factors contributing to losses of organic vegetables were due to mechanical damage and underutilized parts and/or short of minimum quality standard. Good practices had been developed after causes of losses were identified. Appropriate postharvest handling and management, for example, temperature control, hygienic cleaning, and reducing the duration of the supply chain, postharvest losses of all organic vegetables should be able to remarkably reduced postharvest losses in the supply chain.

Keywords : postharvest losses, organic vegetables, handling improvement, shelf life, supply chain

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